

REMARKS

Applicants appreciate the thorough examination of the present application that is reflected in the Office Action. In response thereto, Applicants have amended the title, amended Claims 1, 10, and 15, and canceled Claims 8, 9, 20, and 21. Applicants submit that the pending claims are patentable over the cited references in view of the above-amendments and for at least the reasons explained below in the following remarks.

The objection to Claim 15 has been overcome:

Claim 15 has been amended to add the word "time" in line 9 after the word "GPS", as suggested in the Office Action, to overcome the pending objection. Accordingly, Applicants request withdrawal of the objection to Claim 15.

The objection to the Specification has been overcome:

The title has been amended to more clearly indicate the subject matter to which at least some of the claims are directed. Accordingly, Applicants request withdrawal of the objection to the specification.

The rejection of Claims 8 and 9 under 35 USC § 101 has been rendered moot:

Cancellation of Claims 8 and 9 has rendered moot the rejection thereof under 35 USC §101.

Independent Claims 1, 10, 13, 15, and 22 are Not Anticipated by Turetzky:

Pending Claims 1-7, 10-19, and 22 stand rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Published Patent Application No. 2002/0173322 to Turetzky et al. ("Turetzky").

To further clarify their patentable distinctions over Turetzky, independent Claims 1, 10, and 15 have been amended to recite that GPS timing is estimated using, *inter alia*, timing advance data, as is recited in original independent Claims 13 and 22.

Claim 1 has been amended to recite (emphasis added):

1. A method for estimating GPS time in a mobile terminal that operates in a wireless communication system, the method comprising:
generating at the mobile terminal a repository of cell-to-GPS timing data that is representative of a timing offset between GPS time and cell time for two or more cells with which the mobile terminal communicates;
identifying an originating cell of a received communication signal from a base station;
identifying timing advance data in the received communication signal, the timing advance data indicating distance between the mobile terminal and the base station;
estimating GPS time using the repository of cell-to-GPS timing data, the identity of the originating cell, the timing advance data, and a time indicator portion of the received communication signal.

Accordingly, amended Claim 1 recites that the GPS time is estimated using, *inter alia*, timing advance data which indicates distance between the mobile terminal and the base station.

The present application describes that “as the mobile terminal 100 moves within the first cell 108, the distance between the mobile terminal 100 and the base station 102, which services that cell, varies, and the associated arrival time of the Cell 1 Channel timing indicators varies.” (Specification, page 9, lines 5-9). Consequently, “movement of the mobile terminal 100 may introduce error into the cell-to-GPS timing data.” (Specification, page 9, lines 9-10). Such error may be reduced/avoided “by compensating the first cell time reference for the distance between the mobile terminal 100 in that base station 102.” (Specification, page 9, lines 14-15). Accordingly, embodiments according to Claim 1 may compensate for movement of the mobile terminal relative to the base station, which services the originating cell identified by the mobile terminal, by estimating the GPS time using, *inter alia*, timing advance data that indicates distance between the mobile terminal and the base station.

The Office Action on page 8 suggests that Turetzky inherently discloses such operation because Turetzky “discloses ‘BS time’ at the mobile station, therefore, the timing advance data is inherent to be at the mobile station or if the base station time is known at the mobile, as in [Turetzky], then there is no need for the timing advance data [see 0059]”. Paragraph 0059 relied upon by the Office Action recites the following:

Some networks may not have a Geolocation Server and thus cannot provide satellite position information at all. However, if the MS computes the offset and saves it, then for future starts the MS can use the BS time as a highly accurate measure of the elapsed time. On future starts, the MS can use this time to produce its own satellite position information. This eliminates the need for timekeeping in the MS when the MS is off which can save battery life.

(Turetzky, para. 0059).

Turetzky's paragraph 0059 describes that the mobile station computes an offset between satellite time and base station time, and saves the computed offset for future use when starting up and producing satellite position information. Neither paragraph 0059 nor elsewhere does Turetzky appear to recognize that movement of the mobile station relative to the base station may introduce error into the cell-to-GPS timing data, nor does it appear to provide any solution for reducing/avoiding such error. Furthermore, neither paragraph 0059 nor elsewhere does Turetzky describe or suggest that GPS time is estimated using timing advance data which indicates distance between the mobile terminal and the base station, a repository of cell-to-GPS timing data, the identity of the originating cell, and a time indicator portion of the received communication signal.

Accordingly, Applicants submit that Turetzky does not disclose each and every recitation of Claim 1 and, therefore, cannot anticipate Claim 1. Applicants therefore request reconsideration and allowance of Claim 1.

Independent Claims 10, 13, 15, and 22 similarly recite that GPS time is estimated using, *inter alia*, timing advance data which indicates distance between the mobile terminal and the base station. Accordingly, Applicants submit that Turetzky does not disclose each and every recitation of Claims 10, 13, 15, and 22 and, therefore, cannot anticipate Claims 10, 13, 15, and 22. Applicants therefore request reconsideration and allowance of Claims 10, 13, 15, and 22.

The dependent claims are patentable at least pursuant to the patentability of independent Claims 1, 10, 13, 15, and 22 from which they depend.

In re: Camp et al.
Serial No.: 10/672,547
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Page 12

CONCLUSION

In light of the above amendments and remarks, Applicants respectfully submit that the above-entitled application is now in condition for allowance. Favorable reconsideration of this application, as amended, is respectfully requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (919) 854-1400.

Respectfully submitted,

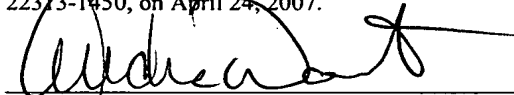


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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: MS AMENDMENT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on April 24, 2007.


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